REMARKS

Claims 1-25 are presently pending.

I. DRAWINGS

Fig. 3 has been amended to correct an obvious typographical error, that is, a misspelling of "SPECIAL" in step 118. No new matter has been added.

II. REJECTION OF CLAIMS UNDER 35 USC §103(a)

Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng, U.S. Patent No. 6,459,705 ("Cheng") in view of Shim, U.S. Patent No. 6,088,723 ("Shim")[1]. Withdrawal of the rejection is respectfully requested for at least the following reasons.

Cheng discloses a network interface 120 for a host computer system 100. A host computer 100 is connected to an external computer network via an external network interface. See, for example, Abstract and FIG. 1. The external network interface includes a physical layer 108, which provides a connection to the external computer network. The external network interface also includes a media access control (MAC) layer 102 connected to the physical layer 108 through a media independent interface (MII) 106. The MAC layer 102 interfaces with the host computer's operating system to allow the host computer to send and receive network data.

In FIG. 1, Cheng further discloses a system management controller 110 provided to transmit and receive data over an external network and to activate an isolation block 104. The controller 110 includes a network interface 120. The network interface 120 includes a transmit MAC layer 122 and a receive MAC layer 124. These MAC layers interface with the host computer's PHY layer 108 over the MII 106. When the host computer enters a sleep state, the controller 110 activates the isolation block 104. The activation of the isolation block 104

[1] The Examiner cites U.S. Patent No. 6,571,291 issued to Cheng. However, U.S. Patent No. 6,571,291 is issued to Chow and cited by the Examiner in a previous Office Action. U.S. Patent No. 6,459,705 is issued to Cheng also previously cited by the Examiner. Thus, the applicants have cited Cheng as U.S. Patent No. 6,459,705.

disconnects the host computer's MAC layer 102 from the host computer's PHY layer 108, and enables the network interface 120 to transmit and receive data over the external network. Col. 3, lines 19-38. Cheng does not disclose a method of communicating within a network interface apparatus. That is, Cheng does not disclose creating special frames in a first part of the apparatus, the special frames including an identifier that distinguishes them from other frames passing through the apparatus. Further, Cheng does not disclose sending the special frames from the first part to a second part of the apparatus through at least a media access controller of the device, the second part including a physical layer device. Further still, Cheng does not disclose identifying the special frames from among frames incoming to the second part, the identifying including examining the incoming frames for the presence of the identifier; and extracting physical layer device control information from the special frames at the second part.

Claim 1 recites a method of communicating within a network interface apparatus that includes, *inter alia*, creating special frames in a first part of the apparatus, the special frames including an identifier that distinguishes them from other frames passing through the apparatus; sending the special frames from the first part to a second part of the apparatus through at least a media access controller of the device, the second part including a physical layer device; identifying the special frames from among frames incoming to the second part, the identifying including examining the incoming frames for the presence of the identifier; and extracting physical layer device control information from the special frames at the second part. Cheng does not teach or suggest such a method of communicating within a network interface apparatus. To the contrary, Cheng discloses disconnecting the host computer's MAC layer 102 from the host computer's PHY layer 108. This enables the network interface 120 to transmit and receive data over the external network via the host computer's PHY layer 108. See, for example, Fig. 1 and Col. 3, lines 31-38. Further, Cheng discloses the network interface 120 reads data from a transmit buffer 132. More specifically, a buffer manager 126 reads the frame data from the transmit buffer 132. The transmit buffer manager 126 then provides the data to the transmit MAC 122. The transmit MAC 122 adds an appropriate preamble and start of frame delimiter to the data and

provides it to the MII 106 for network transmission by the PHY layer 108. The transmit buffer manager 126 continues to read data from the transmit buffer 132 until its contents are empty. The buffer manager 126 continues to provide the data to the transmit MAC 122 for transmission over the network. Cheng does not disclose creating special frames that include an identifier that distinguishes them from other frames passing through the apparatus, identifying the special frames from among frames incoming to the second part, the identifying including examining the incoming frames for the presence of the identifier; and extracting physical layer device control information from the special frames at the second part.

Shim does not make up for the deficiencies of Cheng. Shim discloses an optical CATV system having enhanced transmission efficiency of a subscriber network. See, for example, the Abstract. Shim does not disclose creating special frames that include an identifier that distinguishes them from other frames passing through the apparatus, identifying the special frames from among frames incoming to the second part, the identifying including examining the incoming frames for the presence of the identifier; and extracting physical layer device control information from the special frames at the second part. Shim discloses the frame control unit 9 extracts a physical layer data, that is, Cv value from the ISDN frame to send it to the HDLC unit 7, code-converting the physical layer data and sending it to an ISDN telephone 13 through the matching unit 11, performing the reverse process. Since Cheng and Shim do not teach or suggest all the features of claim 1, claim 1 and the claims that depend therefrom are patentable over Cheng and Shim, alone or in combination.

Claim 11 recites a network interface apparatus that includes, *inter alia*, a driver arrangement operatively coupled to the media access controller, the device driver arrangement including a device driver operatively configured to communicate with the media access controller, and an intermediate driver operatively configured to communicate control information to the network medium interface. Cheng does not disclose a driver arrangement operatively coupled to a media access controller. Further, Cheng does not disclose the device driver arrangement including a device driver operatively configured to communicate with the media access controller. Shim

does not make up for the deficiencies of Cheng. Therefore, claims 11-20 are patentable over Cheng and Shim, alone or in combination.

Claim 21 recites a network interface apparatus that includes, *inter alia*, a means for controlling the physical layer device by passing control information through the media access controller. Cheng does not disclose a means for controlling a physical layer device by passing control information through a media access controller. Shim does not make up for the deficiencies of Cheng. Thus, claims 21-25 are patentable over Cheng and Shim, alone or in combination.

III. CONCLUSION

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present invention.

Any fee(s) resulting from this communication is hereby authorized to be charged to our Deposit Account No. 18-0988; Our Order No. E0889 (AMDSP0354US).

Respectfully submitted,
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